

05/22

8

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See page 6

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/046,924

DATE: 01/27/2003
TIME: 12:11:50

Input Set : D:\seqlist.txt
Output Set: N:\CRF4\01272003\J046924.raw

4 <110> APPLICANT: Cases, Sylvaine
 5 Stone, Scot
 6 Zhou, Ping
 7 Farese, Robert V.
 8 Chi-Liang Eric Yen
 10 <120> TITLE OF INVENTION: DIACYLGLYCEROL O-ACYLTRANSFERASE 2a
 11 (DGAT2a)
 14 <130> FILE REFERENCE: UCAL240CIP
 16 <140> CURRENT APPLICATION NUMBER: US 10/046,924
 C--> 17 <141> CURRENT FILING DATE: 2003-01-14
 19 <150> PRIOR APPLICATION NUMBER: 60/271,307
 20 <151> PRIOR FILING DATE: 2001-02-23
 22 <150> PRIOR APPLICATION NUMBER: 09/794,715
 23 <151> PRIOR FILING DATE: 2001-02-26
 25 <160> NUMBER OF SEQ ID NOS: 18
 27 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 29 <210> SEQ ID NO: 1
 30 <211> LENGTH: 1231
 31 <212> TYPE: DNA
 32 <213> ORGANISM: Homo sapiens
 34 <400> SEQUENCE: 1
 35 ttcagccatg aagaccctca tagccgccta ctccgggtc ctgcgcggcg agcgtcaggc 60
 36 cgaggctgac cgagccagc gctctcacgg aggaccctgt tcgcgcgagg ggtctggag 120
 37 atggggcact ggatccagca tcctctccgc cctccaggac ctcttctctg tcacctggct 180
 38 caataggctcc aagggtggaaa agcagctaca ggtcatctca gtgctccagt gggctctgtc 240
 39 ctcccttgta ctgggagtgg cctgcagtgc catcctcatg tacatattct gcaactgattg 300
 40 ctggctcatc gctgtgctct acttcacttg gctgggttt gactggaaca caccgaagaa 360
 41 aggtggcagg aggtcacagt gggccggaaa ctggctgtg tggcgtact ttcgagacta 420
 42 cttcccccattc cagctggta agacacacaaa cctgctgacc accaggaact atatctttgg 480
 43 ataccacccccc catggtatca tgggcctggg tgccttctgc aacttcagca cagaggccac 540
 44 agaagtggac aagaagttcc caggcatacg gccttacctg gctacactgg caggcaactt 600
 45 cccaatgcct gtgttgggg agtacctgat gtctggaggt atctgcctcg tcagccggga 660
 46 caccatagac tatttgcttt caaagaatgg gagtggcaat gctatcatca tcgtggtcgg 720
 47 gggtgcggct gagtctctga gctccatgcc tggcaagaat gcagtcaccc tgccgaaccg 780
 48 caagggtctt gtgaaactgg ccctgcgtca tggagctgac ctgggtccca tctactcctt 840
 49 tggagagaat gaagtgtaca agcaggtgat cttcgaggag ggctcctggg gccgatgggt 900
 50 ccagaagaag ttccagaaat acattggttt cgcccccattgc atcttccatg gtcgaggcct 960
 51 cttctccctcc gacacctggg ggctgggtgcc ctactccaag cccatcacca ctgttgggg 1020
 52 agagcccatc accatccccca agctggagca cccaaacccag caagacatcg acctgtacca 1080
 53 caccatgtac atggaggccc tggtaagct cttcgacaag cacaagacca agttccgcct 1140
 54 cccggagact gaggtcctgg aggtgaactg agccagcctt cggggccaaat tccctggagg 1200
 55 aaccagctgc aaatcaactt tttgctctgt a 1231
 57 <210> SEQ ID NO: 2

RAW SEQUENCE LISTING
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Input Set : D:\seqlist.txt
Output Set: N:\CRF4\01272003\J046924.raw

58 <211> LENGTH: 388
59 <212> TYPE: PRT
60 <213> ORGANISM: Homo sapiens
62 <400> SEQUENCE: 2
63 Met Lys Thr Leu Ile Ala Ala Tyr Ser Gly Val Leu Arg Gly Glu Arg
64 1 5 10 15
65 Gln Ala Glu Ala Asp Arg Ser Gln Arg Ser His Gly Gly Pro Ala Leu
66 20 25 30
67 Ser Arg Glu Gly Ser Gly Arg Trp Gly Thr Gly Ser Ser Ile Leu Ser
68 35 40 45
69 Ala Leu Gln Asp Leu Phe Ser Val Thr Trp Leu Asn Arg Ser Lys Val
70 50 55 60
71 Glu Lys Gln Leu Gln Val Ile Ser Val Leu Gln Trp Val Leu Ser Phe
72 65 70 75 80
73 Leu Val Leu Gly Val Ala Cys Ser Ala Ile Leu Met Tyr Ile Phe Cys
74 85 90 95
75 Thr Asp Cys Trp Leu Ile Ala Val Leu Tyr Phe Thr Trp Leu Val Phe
76 100 105 110
77 Asp Trp Asn Thr Pro Lys Lys Gly Gly Arg Arg Ser Gln Trp Val Arg
78 115 120 125
79 Asn Trp Ala Val Trp Arg Tyr Phe Arg Asp Tyr Phe Pro Ile Gln Leu
80 130 135 140
81 Val Lys Thr His Asn Leu Leu Thr Thr Arg Asn Tyr Ile Phe Gly Tyr
82 145 150 155 160
83 His Pro His Gly Ile Met Gly Leu Gly Ala Phe Cys Asn Phe Ser Thr
84 165 170 175
85 Glu Ala Thr Glu Val Ser Lys Lys Phe Pro Gly Ile Arg Pro Tyr Leu
86 180 185 190
87 Ala Thr Leu Ala Gly Asn Phe Arg Met Pro Val Leu Arg Glu Tyr Leu
88 195 200 205
89 Met Ser Gly Gly Ile Cys Pro Val Ser Arg Asp Thr Ile Asp Tyr Leu
90 210 215 220
91 Leu Ser Lys Asn Gly Ser Gly Asn Ala Ile Ile Val Val Gly Gly
92 225 230 235 240
93 Ala Ala Glu Ser Leu Ser Ser Met Pro Gly Lys Asn Ala Val Thr Leu
94 245 250 255
95 Arg Asn Arg Lys Gly Phe Val Lys Leu Ala Leu Arg His Gly Ala Asp
96 260 265 270
97 Leu Val Pro Ile Tyr Ser Phe Gly Glu Asn Glu Val Tyr Lys Gln Val
98 275 280 285
99 Ile Phe Glu Glu Gly Ser Trp Gly Arg Trp Val Gln Lys Lys Phe Gln
100 290 295 300
101 Lys Tyr Ile Gly Phe Ala Pro Cys Ile Phe His Gly Arg Gly Leu Phe
102 305 310 315 320
103 Ser Ser Asp Thr Trp Gly Leu Val Pro Tyr Ser Lys Pro Ile Thr Thr
104 325 330 335
105 Val Val Gly Glu Pro Ile Thr Ile Pro Lys Leu Glu His Pro Thr Gln
106 340 345 350
107 Gln Asp Ile Asp Leu Tyr His Thr Met Tyr Met Glu Ala Leu Val Lys

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Input Set : D:\seqlist.txt
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108	355	360	365	
109	Leu Phe Asp Lys His Lys Thr Lys Phe Gly Leu Pro Glu Thr Glu Val			
110	370	375	380	
111	Leu Glu Val Asn			
112	385			
114	<210> SEQ ID NO: 3			
115	<211> LENGTH: 1167			
116	<212> TYPE: DNA			
117	<213> ORGANISM: Mus musculus			
119	<220> FEATURE:			
120	<221> NAME/KEY: misc_feature			
121	<222> LOCATION: (1)...(1167)			
122	<223> OTHER INFORMATION: n = A,T,C or G			
124	<400> SEQUENCE: 3			
125	atgaagaccc tcatcgccgc ctactccggg gtcctgcggg gtgagcgtcg ggccggaaagct	60		
126	gccccgcagcg aaaacaagaa taaaggatct gcccgtcac gcgaggggtc tgggcgtatgg	120		
127	ggcactggct ccagacatcct ctcagccctc caagacatct tctctgtcac ctggctcaac	180		
128	agatcyaagg tggaaaaaca gctgcaggtc atctcagtagtaca tacaatgggt cctatccttc	240		
129	ctgggtctag gagggtcgtc cagttgtatc ctcatgtaca ccttctgcac agactgctgg	300		
130	ctgatagctg tgctctactt cacctggctg gcatttgact ggaacacgccc caagaaaggt	360		
131	gcccaggat cgcagtgggt gcgaaaactgg gccgtgtggc gctacttccg agactacttt	420		
132	cccatccagc tggtaagac acacaacctg ctgaccacca ggaactatataat cttggatac	480		
133	caccccccattt gcatcatggg cctgggtgcc ttctgttaact tcagcacaga ggctactgaa	540		
134	gtcagcaaga agtttcctgg cataaggccc tattttggcta cggtggcygg taacttccgg	600		
135	atgcctgtgc ttgcgcgatc cctgatgtct ggaggcatct gcccgtcaa ccgagacacc	660		
136	atagactact tgctctccaa gaatgggatgg ggcaatgcta tcatcatcgatgg tggggaggt	720		
137	gcagctgagt ccctgagctc catgcctggc aagaacgcag tcaccctgaa gaaccgcaaa	780		
138	gcctttgtga agctggccct gcccattggc gctgatctgg ttcccactta ttccctttggaa	840		
139	gagaatgagg tatacaagca ggtgatctt gaggagggtt cctggggccg atgggtccag	900		
140	aagaagttcc agaagtatat tggtttcggcc ccctgcattt tccatggccg aggcctttc	960		
141	tcctctgaca cctgggggct ggtgccttcc tccaaaggccc tcaccaccgt cgtgggggag	1020		
142	cccatcaactg tcccccaagct ggagcaccccg acccagaaag acatcgacccgtt accatgcc	1080		
W-->	143 atgtacatgg aggccctggtaa gaaatcaca agaccaaaaatt tggcctncca	1140		
144	gagactgagg tgctggaggt gaactga	1167		
146	<210> SEQ ID NO: 4			
147	<211> LENGTH: 387			
148	<212> TYPE: PRT			
149	<213> ORGANISM: Mus musculus			
151	<400> SEQUENCE: 4			
152	Met Lys Thr Leu Ile Ala Ala Tyr Ser Gly Val Leu Arg Gly Glu Arg			
153	1 5 10 15			
154	Arg Ala Glu Leu Pro Ala Ala Lys Asn Lys Asn Lys Gly Ser Ala Leu			
155	20 25 30			
156	Ser Arg Glu Gly Ser Gly Arg Trp Gly Thr Gly Ser Ser Ile Leu Ser			
157	35 40 45			
158	Ala Leu Gln Asp Ile Phe Ser Val Thr Trp Leu Asn Arg Ser Lys Val			
159	50 55 60			
160	Glu Lys Gln Leu Gln Val Ile Ser Val Leu Gln Trp Val Leu Ser Phe			
161	65 70 75 80			

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/046,924

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Input Set : D:\seqlist.txt
Output Set: N:\CRF4\01272003\J046924.raw

162 Leu Val Leu Gly Val Ala Cys Ser Val Ile Leu Met Tyr Thr Phe Cys
163 85 90 95
164 Thr Asp Cys Trp Leu Ile Ala Val Leu Tyr Phe Thr Trp Leu Ala Phe
165 100 105 110
166 Asp Trp Asn Thr Pro Lys Lys Gly Gly Arg Arg Ser Gln Trp Val Arg
167 115 120 125
168 Asn Trp Ala Val Trp Arg Tyr Phe Arg Asp Tyr Phe Pro Ile Gln Leu
169 130 135 140
170 Val Lys Thr His Asn Leu Leu Thr Thr Arg Asn Tyr Ile Phe Gly Tyr
171 145 150 155 160
172 His Pro His Gly Ile Met Gly Leu Gly Ala Phe Cys Asn Phe Ser Thr
173 165 170 175
174 Glu Ala Thr Glu Val Ser Lys Lys Phe Pro Gly Ile Arg Pro Tyr Leu
175 180 185 190
176 Ala Thr Leu Ala Gly Asn Phe Arg Met Pro Val Leu Arg Glu Tyr Leu
177 195 200 205
178 Met Ser Gly Gly Ile Cys Leu Val Asn Arg Asp Thr Ile Asp Tyr Leu
179 210 215 220
180 Leu Ser Lys Asn Gly Ser Gly Asn Ala Ile Ile Val Val Gly Gly
181 225 230 235 240
182 Ala Ala Glu Ser Leu Ser Ser Met Pro Gly Lys Asn Ala Val Thr Leu
183 245 250 255
184 Lys Asn Arg Lys Gly Phe Val Lys Leu Ala Leu Arg His Gly Ala Asp
185 260 265 270
186 Leu Val Pro Thr Tyr Ser Phe Gly Glu Asn Glu Val Tyr Lys Gln Val
187 275 280 285
188 Ile Phe Glu Glu Gly Ser Trp Gly Arg Trp Val Lys Lys Phe Gln Lys
189 290 295 300
190 Tyr Ile Gly Phe Ala Pro Cys Ile Phe His Gly Arg Gly Leu Phe Ser
191 305 310 315 320
192 Ser Asp Thr Trp Gly Leu Val Pro Tyr Ser Lys Pro Ile Thr Thr Val
193 325 330 335
194 Val Gly Glu Pro Ile Thr Val Pro Lys Leu Glu His Pro Thr Gln Lys
195 340 345 350
196 Asp Ile Asp Leu Tyr His Ala Met Tyr Met Glu Ala Leu Val Lys Leu
197 355 360 365
198 Phe Asp Asn His Lys Thr Lys Phe Gly Leu Pro Glu Thr Glu Val Leu
199 370 375 380
200 Glu Val Asn
201 385
203 <210> SEQ ID NO: 5
204 <211> LENGTH: 1008
205 <212> TYPE: DNA
206 <213> ORGANISM: Mus musculus
208 <400> SEQUENCE: 5
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210 gtgctgcagt gggctctgtc cttcctcctg ctcgtgcagg tgtgcattgg aattatgg 120
211 atgctggtcc tgtacaacta ttggttccct tacatcccat atctggtctg gttttactat 180
212 gactggagaa ccccagagca aggaggcaga agatggaact gggtccaaag ctggcctgtg 240

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Input Set : D:\seqlist.txt
Output Set: N:\CRF4\01272003\J046924.raw

213	tggaggatt	ttaaggagta	tttccaatc	tgtctgtca	aaacgcagga	tttggatccg	300									
214	ggtcacaatt	atataattgg	gttccaccc	catggaatat	tcgtgcctgg	agcctttgga	360									
215	aattttgtat	caaaaatactc	ggacttcaag	aagctatttc	ctggcttac	atcgatatctc	420									
216	cacgtggcca	agatctggtt	ctgtttcccg	ttgttccgag	aatatctgtat	gagtaacggg	480									
217	ccgggttcag	tgtctaagga	gagtttgcgt	catgtgcgt	gcaaggatgg	agggtggcaat	540									
218	gtctcaatca	ttgtcctcgg	aggtgcaag	gaggcgctgg	aggctcaccc	aggaacattc	600									
219	accctgtgca	tccgccagcg	caaagggtt	gttaagatgg	ccttgaccca	tgggccagt	660									
220	ttgggtccag	tatttctt	ttgtgaaaat	gatctatata	agcaaattaa	caaccccaaa	720									
221	ggctcctggc	tacgaactat	acaagacga	atgtatgatt	caatggaggt	agccttgcca	780									
222	ctgatataatg	ccagaggaat	tttccagcac	tactttggca	taatgcctta	tcggaagctg	840									
223	atctacactg	ttgttggccg	ccctatccct	gttcagcaga	ttctgaaccc	gacctcagag	900									
224	cagattgaag	agctgcata	gacataccta	gaggagctaa	agaaaactatt	caatgaacac	960									
225	aaaggaaat	atggattcc	ggagcacgaa	actctggat	ttaaataaa		1008									
227	<210> SEQ ID NO: 6															
228	<211> LENGTH: 335															
229	<212> TYPE: PRT															
230	<213> ORGANISM: Mus musculus															
232	<400> SEQUENCE: 6															
233	Met	Met	Val	Glu	Phe	Ala	Pro	Leu	Asn	Thr	Pro	Leu	Ala	Arg	Cys	Leu
234	1															15
235	Gln	Thr	Ala	Ala	Val	Leu	Gln	Trp	Val	Leu	Ser	Phe	Leu	Leu	Leu	Val
236																30
237	Gln	Val	Cys	Ile	Gly	Ile	Met	Val	Met	Leu	Val	Leu	Tyr	Asn	Tyr	Trp
238																45
239	Phe	Leu	Tyr	Ile	Pro	Tyr	Leu	Val	Trp	Phe	Tyr	Tyr	Asp	Trp	Arg	Thr
240																60
241	Pro	Glu	Gln	Gly	Gly	Arg	Arg	Trp	Asn	Trp	Val	Gln	Ser	Trp	Pro	Val
242		65										75				80
243	Trp	Lys	Tyr	Phe	Lys	Glu	Tyr	Phe	Pro	Ile	Cys	Leu	Val	Lys	Thr	Gln
244												90				95
245	Asp	Leu	Asp	Pro	Gly	His	Asn	Tyr	Ile	Phe	Gly	Phe	His	Pro	His	Gly
246												105				110
247	Ile	Phe	Val	Pro	Gly	Ala	Phe	Gly	Asn	Phe	Cys	Thr	Lys	Tyr	Ser	Asp
248												120				125
249	Phe	Lys	Lys	Leu	Phe	Pro	Gly	Phe	Thr	Ser	Tyr	Leu	His	Val	Ala	Lys
250												135				140
251	Ile	Trp	Phe	Cys	Phe	Pro	Leu	Phe	Arg	Glu	Tyr	Leu	Met	Ser	Asn	Gly
252		145										150				160
253	Pro	Val	Ser	Val	Ser	Lys	Glu	Ser	Leu	Ser	His	Val	Leu	Ser	Lys	Asp
254												165				175
255	Gly	Gly	Gly	Asn	Val	Ser	Ile	Ile	Val	Leu	Gly	Gly	Ala	Lys	Glu	Ala
256											180				190	
257	Leu	Glu	Ala	His	Pro	Gly	Thr	Phe	Thr	Leu	Cys	Ile	Arg	Gln	Arg	Lys
258											195				205	
259	Gly	Phe	Val	Lys	Met	Ala	Leu	Thr	His	Gly	Ala	Ser	Leu	Val	Pro	Val
260											210				220	
261	Phe	Ser	Phe	Gly	Glu	Asn	Asp	Leu	Tyr	Lys	Gln	Ile	Asn	Asn	Pro	Lys
262		225									230				235	240
263	Gly	Ser	Trp	Leu	Arg	Thr	Ile	Gln	Asp	Ala	Met	Tyr	Asp	Ser	Met	Gly

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 01/27/2003
PATENT APPLICATION: US/10/046,924 TIME: 12:11:51

Input Set : D:\seqlist.txt
Output Set: N:\CRF4\01272003\J046924.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 1137
Seq#:9; N Pos. 341

VERIFICATION SUMMARY

PATENT APPLICATION: **US/10/046,924**

DATE: 01/27/2003

TIME: 12:11:51

Input Set : **D:\seqlist.txt**

Output Set: **N:\CRF4\01272003\J046924.raw**

L:17 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:1080

L:367 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:300